

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 7, 2005, 06:55:26 ; Search time 24.409 Seconds
(without alignments)
919.008 Million cell updates/sec

Title: US-09-939-537-35
Perfect score: 288
Sequence: 1 PRASALPAPPTGSGALPDPQT.....VISFLIGLIGVAVCYLAATR 58

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | DB ID | Description |
|------------|-------|-------------|--------|-------|----------------------|
| 1 | 288 | 100.0 | 58 | 2 | AAR78668 CD7 trans |
| 2 | 288 | 100.0 | 58 | 2 | AAR89440 CD7 trans |
| 3 | 284 | 98.6 | 240 | 2 | AAR20806 Human CD7 |
| 4 | 284 | 98.6 | 240 | 2 | AAR91434 Human CD7 |
| 5 | 284 | 98.6 | 240 | 2 | AAR80443 Human CD7 |
| 6 | 284 | 98.6 | 240 | 2 | AAW86190 Human CD7 |
| 7 | 284 | 98.6 | 240 | 3 | AAV96129 Human cell |
| 8 | 284 | 98.6 | 240 | 4 | AAU02438 Human lymph |
| 9 | 284 | 98.6 | 240 | 4 | AAI36657 Human CD7 |
| 10 | 284 | 98.6 | 240 | 4 | ADQ49346 Human CD7 |
| 11 | 284 | 98.6 | 240 | 8 | ADP55090 Human PRO |
| 12 | 284 | 98.6 | 250 | 7 | ADI60167 Secreted |
| 13 | 193 | 67.0 | 225 | 8 | ADG11080 Human the |
| 14 | 176 | 61.1 | 154 | 4 | AAW35850 Human CD7 |
| 15 | 83.5 | 29.0 | 145 | 4 | AAW71046 Drosophila |
| 16 | 82 | 28.5 | 450 | 4 | ABR71041 Drosophila |
| 17 | 81.5 | 28.3 | 199 | 4 | AAU28370 Novel hum |
| 18 | 81.5 | 28.3 | 199 | 7 | ADG09107 Novel pro |
| 19 | 81.5 | 28.3 | 199 | 7 | ADG09108 Novel pro |
| 20 | 81 | 26.1 | 421 | 4 | ABR67110 Drosophila |
| 21 | 81 | 26.1 | 512 | 4 | ABR61369 Drosophila |
| 22 | 81 | 26.1 | 512 | 4 | ADQ00965 Fruit fly |
| 23 | 80.5 | 28.0 | 572 | 2 | AAW31855 Mycobacte |
| 24 | 80.5 | 28.0 | 763 | 2 | AAW31852 Mycobacte |
| 25 | 79.5 | 27.6 | 796 | 7 | ADA08003 Human PR |

| | | | | | |
|----|------|------|------|---|--------------------|
| 26 | 79.5 | 27.6 | 796 | 8 | ADJ32183 Human PPM |
| 27 | 78 | 27.1 | 116 | 4 | AAW20321 Peptide # |
| 28 | 78 | 27.1 | 116 | 4 | ABR40803 Peptide # |
| 29 | 78 | 27.1 | 116 | 4 | AAW34569 Peptide # |
| 30 | 78 | 27.1 | 116 | 4 | ABR24992 Protein # |
| 31 | 78 | 27.1 | 116 | 4 | AAW74455 Human don |
| 32 | 78 | 27.1 | 116 | 4 | AAW61662 Human bra |
| 33 | 78 | 27.1 | 116 | 4 | ABG56248 Human liv |
| 34 | 78 | 27.1 | 116 | 5 | ABG44340 Human pep |
| 35 | 78 | 27.1 | 482 | 7 | ABW74077 DNA clone |
| 36 | 77.5 | 26.9 | 192 | 7 | ADM04085 Human pro |
| 37 | 77 | 26.7 | 170 | 4 | AAO13099 Human pol |
| 38 | 76.5 | 26.6 | 85 | 2 | AAV11809 Human 5' |
| 39 | 76.5 | 26.6 | 710 | 5 | ABG91536 Herbicida |
| 40 | 75 | 26.0 | 286 | 4 | ABG19317 Novel hum |
| 41 | 74.5 | 25.9 | 326 | 5 | ADN19906 Bacteria |
| 42 | 74.5 | 25.9 | 772 | 5 | ADR32244 Human tum |
| 43 | 74.5 | 25.9 | 1526 | 6 | ABO14750 Human nov |
| 44 | 74 | 25.7 | 682 | 7 | ADC31490 Human pro |
| 45 | 74 | 25.7 | 710 | 7 | ADB65248 Human pro |

ALIGNMENTS

| | |
|-----------------------|---|
| RESULT 1 | AAW78668 standard; protein; 58 AA. |
| ID | AAW78668 |
| AC | AAW78668; |
| XX | |
| DT | 11-APR-1996 (first entry) |
| XX | |
| DE | CD7 transmembrane domain. |
| XX | |
| KW | Chimeric receptor; CD4; T-cell receptor; HIV; cytolysis; |
| KW | human immunodeficiency virus; adoptive immunotherapy; CD7. |
| XX | |
| OS | Homo sapiens. |
| XX | |
| PN | WO9521528-A1. |
| XX | |
| PD | 17-AUG-1995. |
| XX | |
| PF | 12-JAN-1995; 95WO-US000454. |
| XX | |
| PR | 14-FEB-1994; 94US-00195395. |
| PR | 02-AUG-1994; 94US-00284391. |
| PA | (GENO) GEN HOSPITAL CORP. |
| XX | |
| PI | Seed B, Banapour B, Romeo C, Kolanus W; |
| XX | |
| DR | WPI; 1995-292893/38. |
| DR | N-PSDB; AAQ96102. |
| XX | |
| PT | Target cytolysis of HIV-infected cells - by chimeric CD4 receptor-bearing |
| PT | cells. |
| XX | |
| PS | Claim 3; Fig 26; 118pp; English. |
| XX | |
| CC | The CD7 transmembrane domain (AAW78668) is used in the construction of a |
| CC | chimeric receptor utilized in the targeted cytolysis of HIV-infected |
| CC | cells. The chimeric receptor comprises the extracellular domain (pref. |
| CC | amino acids 1-394 or 1-200) of CD4 linked via the CD7 transmembrane |
| CC | domain to an intracellular portion, e.g. of T-cell receptor protein zeta. |
| CC | The CD7 portion of the chimeric receptor is encoded by the DNA sequence |
| CC | given in AAQ96102 |
| XX | |
| SQ | Sequence 58 AA; |
| Query Match | 100.0%; Score 288; DB 2; Length 58; |
| Best Local Similarity | 100.0%; Pred. No. 8.5e-22; |

Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLGLGIVACVLAARTR 58
 DB 1 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLGLGIVACVLAARTR 58

RESULT 2

AAR89440
 ID AAR89440 standard; peptide; 58 AA.

AC AAR89440;
 XX

DT 26-SEP-1996 (first entry)
 XX

DE CD7 transmembrane domain.
 XX

KW CD7; transmembrane domain; chimeric receptor; CD5; CD34; CH2; CH3; IgG1;
 KM human; CD4; HIV; proteinaceous alpha-helix; T cell; B cell; neutrophil;
 KM dendritic cell; therapy; mammal; infection.

XX Homo sapiens.
 OS

PN WO603883-A1.
 XX

PD 15-FEB-1996.
 XX

PF 26-JUL-1995; 95WO-US009468.
 XX

PR 02-AUG-1994; 94US-00284391.
 XX

PR 24-FEB-1995; 95US-00394388.
 XX

PA (GENO) GEN HOSPITAL CORP.
 XX

PI Seed B, Banapour B, Romeo C, Kolanus W;
 XX

DR WPI; 1996-129034/13.
 XX

DR N-PSDB; AAT10779.
 XX

PT Membrane-bound chimeric receptor comprising extracellular portion
 including CD4 fragment - cells expressing receptor can be used for
 treatment of HIV infection.

PS Claim 3; Fig 26; 134pp; English.
 XX

CC This sequence represents the CD7 transmembrane domain. This sequence is
 included in the membrane bound proteinaceous chimeric receptor of the
 CC invention. Alternatively the transmembrane region of the chimeric
 CC receptor contains a portion of the CD5 or CD34 transmembrane domain. The
 CC intracellular portion of the receptor can also be separated from the
 CC extracellular domain by the hinge, CH2 and CH3 domains of human IgG1. The
 CC intracellular portion of the chimeric receptor contains a fragment of CD4
 CC (amino acids 1-394 or 1-200 of the CD4 sequence) which specifically
 CC recognizes and binds HIV-infected cells, but does not mediate HIV
 CC infection. The extracellular domain of the receptor is separated from the
 CC cell membrane by 48 or 72 angstroms, or by one or more proteinaceous
 CC alpha-helices. The cells expressing the receptor are preferably T cells,
 CC B cells, neutrophils, or dendritic cells. The therapeutic cells
 CC expressing the chimeric receptor are administered to a mammal to treat
 CC HIV infection
 XX

SQ Sequence 58 AA;
 XX

Query Match 100.0%; Score 288; DB 2; Length 58;
 Best Local Similarity 100.0%; Pred. No. 8.5e-22;

Matches 58; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLGLGIVACVLAARTR 58
 DB 1 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLGLGIVACVLAARTR 58

RESULT 3

AAR20806
 ID AAR20806 standard; protein; 240 AA.

AC AAR20806;
 XX

DT 25-MAR-2003 (revised)
 XX

DT 21-MAY-1992 (first entry)
 XX

DE Human CD7 antigen coding sequence.
 XX

KW cloning technique; cell surface antigen; immunodiagnosis;
 KM T cell acute lymphoblastic leukaemia; tumour; ss.
 XX

OS Homo sapiens.
 XX

FN Key Location/Qualifiers
 FT Modified-site 45..37
 FT /label= N-linked_glycosylation

FT Modified-site 96..98
 FT /label= N-linked_glycosylation

FT Region 145..180
 FT /label= repeat_region

FT /note= "contains 4 repeats of the motif XPPXASALP and may
 FT act as a stalk to project the V-like domain away from the
 FT cell surface"

FT Region 181..201
 FT /label= transmembrane

FN WO9201049-A.
 XX

PD 23-JAN-1992.
 XX

PF 13-JUL-1990; 90US-00553759.
 XX

PR 13-JUL-1990; 90US-00553759.
 XX

PR 13-JUL-1990; 90US-00553759.
 XX

PA (GENO) GEN HOSPITAL CORP.
 XX

PI Seed B, Aruffo A, Amiot M;
 XX

DR WPI; 1992-056864/07.
 XX

DR N-PSDB; AAQ21168.
 XX

PT New CD53 cell surface antigen and DNA encoding it - for immuno-therapy
 and diagnosis of hematopoietic neoplasms, etc.

PS Example 4; Fig 8; 160pp; English.
 XX

CC Homology with Ig variable regions predicts the mature terminus of CD7 is
 CC at residue 26. The single cysteine residue in the transmembrane domain
 CC may be the site of fatty acylation. The sequence has substantial homology
 CC with human and mouse Ig kappa chain and T-cell receptor gamma chain
 CC variable regions over almost the entire extracellular portion of the
 CC molecule. The extracellular domain also has significant homology with
 CC both chains of the rat CD8 heterodimer and the myelin P0 protein. A
 CC disulphide bond linking Cys 23 and Cys 89 of the mature protein is
 CC predicted and a second disulphide bond linking Cys 10 and Cys 117 has
 CC also been proposed. (Updated on 25-MAR-2003 to correct PA field.)
 XX

SQ Sequence 240 AA;
 XX

Query Match 98.6%; Score 284; DB 2; Length 240;
 Best Local Similarity 98.3%; Pred. No. 9.3e-21;

Matches 57; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLGLGIVACVLAARTR 58
 DB 147 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLGLGIVACVLAARTR 204

RESULT 4

AAR91434
 ID AAR91434 standard; protein; 240 AA.

```

XX AC AAR91434;
XX XX
DT 25-MAR-2003 (revised)
DT 30-OCT-1996 (first entry)
XX XX
DE Human CD7 antigen.
XX XX
KW Cell surface antigen; cloning; immunoselection; immunotherapy; therapy;
KW diagnosis; vector; pIH3; CD7; COS; T-lymphocyte.
XX XX
OS Homo sapiens.
XX XX
FH Key Location/Qualifiers
FT Peptide 1..27
FT Modified-site /label= Sig_peptide
FT Modified-site 45..47
FT Modified-site /label= N-glycosylation_site
FT Modified-site 96..98
FT Modified-site /label= N-glycosylation_site
FT Domain 181..201
FT /label= Transmembrane_domain
XX XX
PN US5506126-A.
XX XX
PD 09-APR-1996.
XX XX
PF 18-OCT-1993; 93US-00139273.
XX XX
PR 25-FEB-1988; 88US-00160416.
PR 13-JUL-1989; 89US-00379076.
PR 13-JUL-1990; 90US-00553759.
PR 01-DEC-1992; 92US-00983647.
XX XX
PA (GENE) GEN HOSPITAL CORP.
XX XX
PI Seed B, Aruffo A;
XX XX
DR WPI; 1996-200279/20.
DR N-PSDB; AAT14708.
XX XX
PT Cloning of cDNA encoding cell surface antigen - useful for isolation of
PT diagnostic and therapeutic proteins.
XX XX
PS Example 4; Fig 8A-8B; 79pp; English.
XX XX
CC The amino acid sequence (AAR91434) of CD7, a cell surface antigen
CC associated with human T-cells, was deduced from a cDNA clone (AAT14708)
CC derived from human T-cell tumour HPB-ALL cells. CD7 was expressed in COS
CC cells following construction of a cDNA library utilising vector pIH3 (see
CC also AAT14702) and panning of the library using antibody-coated plates.
CC The physiological role of CD7 is unclear; CD7 was demonstrated not to be an
CC Igm receptor. Using the novel immunoselection cloning method, cell
CC surface antigens (see also AAR91431-46) can be obtd. for diagnostic and
CC therapeutic use in cases of immune-associated disease, and for
CC identification, isolation and purification of antibodies and antigens.
CC (Updated on 25-MAR-2003 to correct PF field.)
XX XX
SQ Sequence 240 AA;
XX XX
Query Match 98.6%; Score 284; DB 2; Length 240;
Best Local Similarity 98.3%; Pred. No. 9,3e-21;
Matches 57; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
XX XX
QY 1 PRASALPAPPTGALPDPTASALPDPPASALPALALAVISFLIGLGVACVLAATR 58
147 PRASALPAPPTGALPDPTASALPDPPASALPALALAVISFLIGLGVACVLAATRQ 204
XX XX
RESULT 5
AAW80443
ID AAW80443 standard; protein; 240 AA.
XX XX

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AC AAW80443;
XX XX
DT 25-MAR-2003 (revised)
DT 07-JUN-1999 (first entry)
XX XX
DE Human CD7 antigen.
XX XX
KW CD7; cell surface antigen; human; lymphocyte; cloning;
KW lymphoblastic leukaemia.
XX XX
OS Homo sapiens.
XX XX
FH Key Location/Qualifiers
FT Modified-site 45..47
FT Modified-site /note= "Asn is N-glycosylated"
FT Modified-site 96..98
FT Modified-site /note= "Asn is N-glycosylated"
FT Domain 181..201
FT Modified-site /note= "Transmembrane domain"
FT /note= "potential fatty acid esterification site"
XX XX
PN US5830731-A.
XX XX
PD 03-NOV-1998.
XX XX
PF 21-MAY-1997; 97US-00861205.
XX XX
PR 25-FEB-1988; 88US-00160416.
PR 13-JUL-1989; 89US-00379076.
PR 13-MAR-1990; 90US-00498809.
PR 13-JUL-1990; 90US-00553759.
PR 01-DEC-1992; 92US-00983647.
XX XX
PA (GENE) GEN HOSPITAL CORP.
XX XX
PI Seed B, Aruffo A;
XX XX
DR WPI; 1998-609251/51.
DR N-PSDB; AAW63446.
XX XX
PT New cloning vector and poly.linker - based on existing sequences for
PT efficient cloning and expression of mammalian cDNA(s), especially human
PT lymphocyte antigenic sequences.
XX XX
PS Example 4; Fig 8A-B; 75pp; English.
XX XX
CC This polypeptide comprises human CD7 antigen. Its amino acid sequence was
CC deduced from the nucleotide sequence (see AAW81204) of a cDNA clone
CC isolated from HPB-ALL T-cell tumour cells using a novel method for
CC cloning cDNAs from mammalian expression libraries. The method is based on
CC transient expression of an antigen in eukaryotic cells and physical
CC selection of cells expressing the antigen by adhesion to an antibody-
CC coated substrate. It is useful for the isolation and cloning of any
CC protein which can be expressed and transported to the cell surface
CC membrane of a eukaryotic cell, and has been used to clone genes (see
CC AAW63442-63) encoding cell surface antigens from mammalian lymphocytes
CC (see AAW80440-55). CD7, a marker for the identification of T cell acute
CC lymphoblastic leukaemia, has been expressed in COS cells. The purified
CC genes and proteins are useful for immunodiagnosis and immunotherapeutic
CC applications, including the diagnosis and treatment of immune-mediated
CC infections, diseases, and disorders of animals, including humans.
CC (Updated on 25-MAR-2003 to correct PR field.)
XX XX
SQ Sequence 240 AA;
XX XX
Query Match 98.6%; Score 284; DB 2; Length 240;
Best Local Similarity 98.3%; Pred. No. 9,3e-21;
Matches 57; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
XX XX
QY 1 PRASALPAPPTGALPDPTASALPDPPASALPALALAVISFLIGLGVACVLAATR 58
147 PRASALPAPPTGALPDPTASALPDPPASALPALALAVISFLIGLGVACVLAATRQ 204
XX XX

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RESULT 6
AAW86190
ID AAW86190 standard; protein; 240 AA.
XX
AC AAW86190;
XX
DT 10-MAY-1999 (first entry)
XX
DE Human CD7 antigen.
XX
KM CD7; cell surface antigen; human; cDNA library; lymphoblastic leukaemia.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Modified-site 45..47
FT Modified-site /note="Asn is N-glycosylated"
FT Modified-site 96..98
FT Domain /note="Asn is N-glycosylated"
FT Domain 181..201
FT Modified-site /note="Transmembrane domain"
FT Modified-site 198
FT /note="potential fatty acid esterification site"
XX
XX US5849898-A.
XX
XX 15-DEC-1998.
XX
XX 07-JUN-1995; 95US-00485447.
XX
XX 25-FEB-1988; 88US-00160416.
XX 13-JUL-1989; 89US-00379076.
XX 23-MAR-1990; 90US-00498809.
XX 13-JUL-1990; 90US-0053759.
XX 01-DEC-1992; 92US-00983647.
XX
XX (GENE) GEN HOSPITAL CORP.
XX
XX Seed B, Oguendo C, Camerini D, Stamenkovic I, Stengelin S,
XX Amlot M, Laufer L, Allen J, Simmons D, Aruffo A;
XX
XX WPI: 1999-065813/06.
XX
XX N-PSDB; AAW81204.
XX
XX cDNA encoding human CD40 antigen - useful for cloning cDNA encoding cell
XX surface antigens, constructing cDNA libraries, expressing vectors for
XX expression in eukaryotic cells or their fragments.
XX
XX Example 4; Fig 8A-B; 79pp; English.
XX
XX This polypeptide comprises human CD7 antigen. Its amino acid sequence was
XX deduced from the nucleotide sequence (see AAW81204) of a cDNA clone
XX isolated from HPB-ALL T-cell tumour cells using a novel method for
XX cloning cDNAs from mammalian expression libraries. The method is based on
XX transient expression of an antigen in eukaryotic cells and physical
XX selection of cells expressing the antigen by adhesion to an antibody-
XX coated substrate. It is useful for the isolation and cloning of any
XX protein which can be expressed and transported to the cell surface
XX membrane of a eukaryotic cell, and has been used to clone genes (see
XX AAW81198-220) encoding cell surface antigens such as CD1a, CD1b, CD1c,
XX CD2, CD6, CD7, CD13, CD14, CD16, CD19, CD20, CD22, CD26, CD27, CD28,
XX CD31, CD32, CD33, CD34, CD36, CD37, CD38, CD39, CD40, CD43,
XX CD44, CD53, ICAM, LFA-3, FCRIa, FCRIb, TII5a and Leu8 (see AAW86188-62,
XX AAW89151-52 and AAW88451). CD40 cDNA (see AAW81198) is specifically
XX claimed. CD7, a marker for the identification of T cell acute
XX lymphoblastic leukaemia, has been expressed in COS cells
XX
XX Sequence 240 AA;
XX
Query Match 98.6%; Score 284; DB 2; Length 240;
Best Local Similarity 98.3%; Pred. No. 9.3e-21;

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Matches 57; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 PRASALPAPPPTGSAIPDPTGASALPDPPASALPALAVISFLGIGLVACVLAETR 58
DB 147 PRASALPAPPPTGSAIPDPTGASALPDPPASALPALAVISFLGIGLVACVLAETRQ 204

RESULT 7
AA96129
ID AA96129 standard; protein; 240 AA.
XX
AC AA96129;
XX
DT 19-DEC-2000 (first entry)
XX
DE Human cell surface antigen CD7.
XX
XX CD7; cell surface antigen; human; immunoselection; panning;
XX immunodiagnosis; diagnosis; immunotherapy; gene therapy; immune disorder;
XX infection; asthma; immune-complex disease; amyloidosis;
XX multiple sclerosis; parasitic disease; leukaemia.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
FH Disulfide-bond 10..117
FT Disulfide-bond 23..89
FT Modified-site 45
FT Modified-site /note="N-glycosylated"
FT Modified-site 106
FT Domain /note="N-glycosylated"
FT Domain 181..201
FT /label= Transmembrane_domain
XX
XX US611093-A.
XX
XX 29-AUG-2000.
XX
XX 28-OCT-1998; 98US-00181612.
XX
XX 25-FEB-1988; 88US-00160416.
XX 13-JUL-1989; 89US-00379076.
XX 23-MAR-1990; 90US-00498809.
XX 13-JUL-1990; 90US-0053759.
XX 01-DEC-1992; 92US-00983647.
XX
XX (GENE) GEN HOSPITAL CORP.
XX
XX Stamenkovic I, Seed B;
XX
XX WPI: 2000-586382/55.
XX
XX N-PSDB; AAAS0582.
XX
XX Isolated nucleic acid molecule encoding the CD19 cell surface antigen,
XX useful for immunodiagnosis and immunotherapy of immune-mediated
XX infections or disorders, e.g. asthma, immune-complex disease, parasitic
XX diseases.
XX
XX Example 4; Fig 8A-B; 75pp; English.
XX
XX The present sequence is that of human cell surface antigen (CSA) CD7, as
XX predicted from cDNA isolated from a human T-cell tumour HPB-ALL cDNA
XX library. The cDNA (see AAAS0582) was identified using a new method for
XX cloning cDNAs encoding CSAs. The method is based upon transient
XX expression of CSA in eukaryotic cells and physical selection of cells
XX expressing the CSA by adhesion to (panning on) an antibody-coated
XX substrate such as a culture dish. The predicted amino acid sequence of
XX CD7 reveals substantial homology in the extracellular region to human and
XX mouse immunoglobulin kappa chain and T-cell receptor gamma chain variable
XX regions. CD7 is a marker for T-cell acute lymphoblastic leukaemia. The
XX CSA nucleic acids isolated by the novel method, and the proteins they
XX encode, are useful for immunodiagnosis and immunotherapeutic
XX applications, including the diagnosis and treatment of immune-mediated

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infections, diseases, and disorders in animals, including humans. These disorders include asthma, immune-complex disease, amyloidosis, parasitic diseases or multiple sclerosis

Sequence 240 AA;

Query Match 98.6%; Score 284; DB 3; Length 240; Best Local Similarity 98.3%; Pred. No. 9.3e-21; Matches 57; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

1 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLIGLGVACVLTARR 58
147 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLIGLGVACVLTARR 204

RESULT 8
AAU02438
AAU02438 standard; protein; 240 AA.

AC AAU02438;
XX
XX 09-SEP-2004 (revised)
DT 29-AUG-2001 (first entry)

Human lymphocyte cell surface antigen CD7 polypeptide.

Human; lymphocyte cell surface antigen; immune-mediated disease; CD7; infection; immune deficiency disorder; hypersensitivity; inflammation; systemic lupus erythematosus; platelet disorder; rheumatoid arthritis; transplant rejection; asthma.

Homo sapiens.
OS unidentified.

Key Location/Qualifiers
FT Modified-site 45..47
FT /note="Aen is glycosylated"

FT Modified-site 96..98
FT /note="Aen is glycosylated"

FT Domain 181..201
FT /label = Transmembrane_domain
FT Modified-site 198
FT /note="Fatty acid esterification site"

US6218525-B1.

17-APR-2001.

01-DEC-1992; 92US-00983647.

25-FEB-1988; 88US-00160416.

13-JUL-1989; 89US-00379076.

13-JUL-1990; 90US-00553759.

(GENO) GEN HOSPITAL CORP.

Seed B, Arruffo A, Simmons D;

WPI; 2001-289848/30.

N-PSDB; AAS03176.

New recombinant DNA encoding CD28 useful for diagnosing and treating immune-mediated diseases, infections or disorders, e.g. systemic lupus erythematosus, asthma, transplant rejection, rheumatoid arthritis.

Example 4; Fig 8A-8B; 72pp; English.

The present sequence representing human lymphocyte cell surface antigen CD7 is 1 of various human lymphocyte cell surface antigen polypeptide sequences (AAU02435-AAU02452) described in the present invention. The invention relates to a novel method of cloning cDNA encoding cell surface antigens and efficient construction of cDNA libraries. Also described are 2 expression vectors (AAS03171, AAS03174) which provide high level

expression in eukaryotic host cells. A genetically engineered cDNA sequence encoding the CD28 amino acid extracellular domain sequence (amino acids 1-134 given in AAU02437) and/or comprising nucleotides 100-759, 154-555 or 154-759 of the CD28 cDNA sequence (AAS03175) is also new.

The purified genes and proteins are useful for immunodiagnostic and immunotherapeutic applications, such as in the diagnosis and treatment of immune-mediated diseases, infections or disorders in animals and humans. Such diseases include immune deficiency diseases, diseases of immediate type of hypersensitivity, asthma, hypersensitivity pneumonitis, systemic lupus erythematosus, rheumatoid arthritis, acute and chronic inflammation, platelet disorders, plasma and other cell neoplasms, parasitic diseases, multiple sclerosis, Guillain-Barre syndrome and tissue and organ transplant rejection. The sequences can also be used to identify, isolate and purify other antibodies and antigens

Revised record issued on 09-SEP-2004 : Correction to feature table key

Query Match 98.6%; Score 284; DB 4; Length 240; Best Local Similarity 98.3%; Pred. No. 9.3e-21; Matches 57; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

1 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLIGLGVACVLTARR 58
147 PRASALPAPPTGSALPDPTASALPDPPASALPALAVISFLIGLGVACVLTARR 204

RESULT 9
AAB36657
AAB36657 standard; protein; 240 AA.

AC AAB36657;
XX
XX 13-MAR-2001 (first entry)

Human CD7 protein sequence SEQ ID NO:2.

Human; CD7; K12; cognate ligand; cluster of differentiation; cancer; identification; inhibiting T cell proliferation; HIV; infection; activating natural killer cell proliferation; leukaemia; lymphoma; sepsis; graft versus host disease; autoimmune disease; arthritis; multiple sclerosis; rheumatoid arthritis; psoriatic arthritis; lupus; scleroderma; psoriasis; atopic dermatitis; type I diabetes mellitus; Hashimoto's thyroiditis; pernicious anaemia; Addison's disease; uveitis; myasthenia gravis; psoriasis; Guillain-Barre Syndrome; Grave's disease; systemic lupus erythematosus; dermatomyositis; asthma; eczema; atypical dermatitis; contact dermatitis; eczematous dermatitis; seborrhoeic dermatitis; rhinitis.

Homo sapiens.
OS
XX
XX WO200073333-A2.

07-DEC-2000.

26-MAY-2000; 2000WO-US014612.

28-MAY-1999; 99US-0136450P.

(IMMUNEX) IMMUNEX CORP.

Lyman SD, Fanelow WC;

WPI; 2001-061511/07.

N-PSDB; AAC88151.

Stimulating intracellular signaling of CD7 comprises contacting a cell expressing CD7 with recombinant K12 protein, the cognate ligand of CD7, to inhibit T cell proliferation and/or activate natural killer cell proliferation.

Disclosure; Page 35-36; 42pp; English.

PT and treating an immune related disease, e.g. systemic lupus
PT erythematous, rheumatoid arthritis, diabetes mellitus or asthma and in
PT stimulating an immune response.

PS Claim 1; SEQ ID NO 1066; 3009pp; English.

CC The present invention describes an isolated PRO nucleic acid (1). Also
CC described: (1) a vector comprising (1); (2) a host cell comprising the
CC vector of (1); (3) a process for producing a PRO polypeptide; (4) an
CC isolated PRO polypeptide; (5) a chimeric molecule comprising the
CC polypeptide of (4) fused to a heterologous amino acid sequence; (6) an
CC antibody which specifically binds to a polypeptide of (4); (7) a
CC composition of matter comprising a polypeptide of (4); an agonist or
CC antagonist of the polypeptide or an antibody that binds to the
CC polypeptide in combination with a carrier; (8) an article of manufacture
CC comprising a container, a label on the container and a composition of
CC matter of (7); (9) a method of treating an immune related disease in a
CC mammal; (10) a method for determining the presence of a PRO polypeptide
CC in a sample suspected of having the polypeptide; (11) a method of
CC diagnosing an immune related disease or an inflammatory immune response
CC in a mammal; (12) a method of identifying a compound that inhibits or
CC mimics the activity of or expression of a gene encoding a PRO polypeptide
CC; and (13) a method of stimulating the immune response in a mammal. The
CC PRO sequences have antiallergic, antianaemic, antipruritic,
CC antiaesthetic, antidiabetic, antiinflammatory, antipruritic,
CC antirheumatic, antihypertensive, dermatological, gastrointestinal,
CC haemostatic, hepatotropic, immunostimulant, immunosuppressive, muscular,
CC nephrotropic, neuroprotective, osteopathic, respiratory, vasotropic and
CC vincidic activities, and can be used in gene therapy. The nucleic acid
CC (1) and the encoded polypeptides, compositions, kits and methods are
CC useful in diagnosing and treating an immune related disease and in
CC stimulating an immune response. The present sequence represents a human
CC PRO protein from the present invention.

SO Sequence 240 AA;

Query Match 98.6%; Score 284; DB 8; Length 240;
Best Local Similarity 98.3%; Pred. No. 9.3e-21;
Matches 57; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRASALPAPPTGSAALPDPTGASALPDPPASALPALAVISFLGIGLVACVLAARTR 58
DB 147 PRASALPAPPTGSAALPDPTGASALPDPPASALPALAVISFLGIGLVACVLAARTR 204

RESULT 12

ID ADI60167 standard; protein; 250 AA.

AC ADI60167;

DT 15-APR-2004 (first entry)

DE Secreted polypeptide #51.

XX osteopathic; vulnary; cytosolic; gene therapy; diagnosis; forensics;
XX gene mapping; mutation identification; biodiversity; chromosome marker;
XX immune response; myeloid cell disorder; lymphoid cell disorder;
XX bone cartilage; tendon; ligament; nerve tissue growth; wound healing;
XX burns; incision; ulcer; cancer.

OS Homo sapiens.

PN WO2003025142-A2.

PD 27-MAR-2003.

PF 18-SEP-2002; 2002WO-US029636.

PR 18-SEP-2001; 2001US-0323349P.
PR 16-SEP-2002; 2002US-00323349.

PA (HYSB-) HYSBQ INC.

XX Tang YT, Asundi V, Goodrich RW, Ren F, Zhang J, Zhao QA, Wang J;
PI Ghosh M, Xue AJ, Wehrman T, Weng G, Zhou P, Dermanac RT;
PS WPI, 2003-354601/33.
DR N-PSDB; ADI60512.

PT New polynucleotides and secreted proteins, useful for treating myeloid or
PT lymphoid cell disorders, in bone cartilage, tendon, ligament and nerve
PT tissue growth or regeneration, in wound healing, and in tissue repair and
PT replacement.

PS Claim 20; SEQ ID NO 202; 243pp; English.

CC The invention relates to novel isolated polynucleotides or a sequence
CC encoding a polypeptide with biological activity, where the polynucleotide
CC hybridizes to the polynucleotide under stringent hybridization conditions
CC or has greater than 99% sequence identity with the polynucleotide. The
CC polynucleotides and polypeptides are useful in diagnostics, forensics,
CC gene mapping, identification of mutations responsible for genetic
CC disorders and other traits, to assess biodiversity, as nutritional
CC sources or supplements. The polynucleotides may also be used as molecular
CC weight markers, chromosome markers or map related gene positions, or as
CC an antigen to raise anti-DNA antibodies or elicit immune response. The
CC polypeptides are useful for raising antibodies, as markers for tissues in
CC which the corresponding polypeptide is expressed, for re-engineering
CC damaged or diseased tissues, for treating myeloid or lymphoid cell
CC disorders, in bone cartilage, tendon, ligament and/or nerve tissue growth
CC or regeneration, in wound healing, in tissue repair and replacement, in
CC healing of burns, incisions and ulcers, and in treating cancer. This
CC sequence corresponds to a protein sequence of the invention.

SO Sequence 250 AA;

Query Match 98.6%; Score 284; DB 7; Length 250;
Best Local Similarity 98.3%; Pred. No. 9.7e-21;
Matches 57; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 PRASALPAPPTGSAALPDPTGASALPDPPASALPALAVISFLGIGLVACVLAARTR 58
DB 157 PRASALPAPPTGSAALPDPTGASALPDPPASALPALAVISFLGIGLVACVLAARTR 214

RESULT 13

ID ADS11080 standard; protein; 225 AA.

AC ADS11080;

DT 16-DEC-2004 (first entry)

DE Human therapeutic protein - SEQ ID 1317.

XX antiinflammatory; neuroprotective; antianaemic; cytosolic; vulnary;
XX inflammatory; haematopoiesis; immunity; neurodegenerative; stem cell;
XX aplastic anaemia; cancer; wound healing; gene therapy.

OS Homo sapiens.

PN WO2004080148-A2.

PD 23-SEP-2004.

PF 30-SEP-2003; 2003WO-US030720.

PR 02-OCT-2002; 2002US-0416186P.

PA (NUVE-) NUVELO INC.

PI Tang YT, Asundi V, Ren F, Zhang J, Wehrman T, Wang Z, Ma Y;
PI Wang D, Chen R, Zhao QA, Wang J, Ghosh M, Xue AJ, Weng G, Zhou P;

DR WPI, 2004-668857/65.

DR N-PSDB; ADS10396.
 XX New polynucleotide, useful in preparing a composition for diagnosing or
 PT treating inflammatory, neurodegenerative or stem cell disorders, e.g.,
 PT aplastic anemia or cancer for promoting wound healing.
 XX Claim 20; SEQ ID NO 1317; 718bp; English.
 PS
 XX The invention relates to a novel isolated polynucleotide and the encoded
 CC polypeptide. The molecules of the invention demonstrate antiinflammatory,
 CC neuroprotective, antianemic, cytostatic and vulnerary activities and may
 CC be useful in preparing a composition for diagnosing or treating
 CC inflammatory, haematopoietic, immune, neurodegenerative or stem cell
 CC disorders, such as aplastic anemia or cancer, as well as for promoting
 CC wound healing. The molecules may also be utilized during gene therapy
 CC procedures. The current sequence is that of a human therapeutic protein
 CC of the invention. The current sequence is not shown explicitly within the
 CC specification but can be accessed from the WIPO web-site.
 XX
 SQ Sequence 225 AA;
 Query Match 67.0%; Score 193; DB 8; Length 225;
 Best Local Similarity 82.4%; Pred. No. 1.3e-11;
 Matches 42; Conservative 1; Mismatches 2; Indels 6; Gaps 1;
 Oy 8 APPPGSALPPDQTGSALPPDPAASALPAAALAVISFLILGLGVAVYLART 58
 DB 145 APPPAASALP-----ALPDPAPASALPAAALAVISFLILGLGVAVYLARTQ 189
 RESULT 14
 AAM35850 ID AAM35850 standard; protein; 154 AA.
 XX AAM35850;
 AC
 XX 27-APR-1998 (first entry)
 DT
 XX Human CD7 for use in T lymphocyte veto molecule.
 DE
 XX Human; CD7, T lymphocyte veto molecule; chimeric molecule;
 KW targeting polypeptide; suppression; immune response; treatment;
 KW autoimmune disease; allergy; immunological disorder;
 KW transplant rejection.
 XX
 OS Homo sapiens.
 XX
 PN WO9737687-A1.
 PD 16-OCT-1997.
 XX
 PF 10-APR-1997; 97WO-US005943.
 XX
 PR 10-APR-1996; 96US-00630172.
 XX
 PA (NAJF-) NAT JEWISH CENT IMMUNOLOGY & RESPIRATORY.
 XX
 PI Staez UD;
 XX
 XX WPI; 1997-512419/47.
 DR
 XX T lymphocyte veto molecule comprising response cell activating protein -
 PT linked to molecule that targets stimulator cell marker, used for
 PT selective suppression of immune response, e.g. prevention of graft
 PT rejection or treatment of auto-immune disease.
 XX
 PS Claim 37; Page 60; 309pp; English.
 XX A novel T lymphocyte veto molecule is a chimeric molecule comprising a
 CC protein, e.g. the present sequence, linked to a targeting polypeptide
 CC that binds a molecule, which differentiates a host cell from a tissue
 CC graft cell, or selectively targets a stimulator cell involved in the
 CC autoimmune response. A veto molecule, in which the protein binds a

CC molecule that targets stimulator cells, can be used to suppress an immune
 CC response and therefore treat autoimmune diseases, e.g. systemic lupus
 CC erythematosus, myasthenia gravis, rheumatoid arthritis, insulin dependent
 CC diabetes mellitus, multiple sclerosis, coeliac disease, autoimmune
 CC thyroiditis, Addison's or Grave's diseases and rheumatoid arthritis,
 CC allergies and other immunological disorders. Where the protein binds a
 CC molecule that differentiates graft and host cells, the veto molecule can
 CC be used to reduce transplant rejection. The veto molecule provides
 CC specific regulation of particular stimulator cells that can kill graft
 CC cells or respond to autotransplants, but leave other stimulator cells
 CC unaffected, e.g. CD4 or CD8 positive cells can be regulated without one
 CC affecting the other. The veto molecule can be administered locally to
 CC minimise generalised immunosuppression
 XX
 SQ Sequence 154 AA;
 Query Match 61.1%; Score 176; DB 2; Length 154;
 Best Local Similarity 100.0%; Pred. No. 4.6e-10;
 Matches 34; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 Oy 1 PRASALPAPPTGSALPPDQTGSALPPDPAASALP 34
 DB 121 PRASALPAPPTGSALPPDQTGSALPPDPAASALP 154
 RESULT 15
 ABB71046 ID ABB71046 standard; protein; 145 AA.
 XX ABB71046;
 AC
 XX 26-MAR-2002 (first entry)
 DT
 XX Drosophila melanogaster polypeptide SEQ ID NO 39930.
 DE
 XX Drosophila; developmental biology; cell signalling; insecticide;
 KW pharmaceutical.
 KW
 OS Drosophila melanogaster.
 XX
 PN WO200171042-A2.
 PD 27-SEP-2001.
 XX
 PF 23-MAR-2001; 2001WO-US009231.
 XX
 PR 23-MAR-2000; 2000US-0191637P.
 PR 11-JUL-2000; 2000US-00614150.
 XX
 PA (PEKE) PE CORP NY.
 XX
 PI Venter JC, Adams M, Li PWD, Myers EW;
 XX
 XX WPI; 2001-656860/75.
 DR
 XX N-PSDB; ABL15149.
 PT
 PT New isolated nucleic acid detection reagent for detecting 1000 or more
 PT genes from Drosophila and for elucidating cell signaling and cell-cell
 PT interactions.
 XX
 PS Disclosure; SEQ ID NO 39930; 21pp + Sequence Listing; English.
 XX
 XX The invention relates to an isolated nucleic acid detection reagent
 CC capable of detecting 1000 or more genes from Drosophila. The invention is
 CC useful in developmental biology and in elucidating cell signalling and
 CC cell-cell interactions in higher eukaryotes for the development of
 CC insecticides, therapeutics and pharmaceutical drugs. The invention
 CC discloses genomic DNA sequences (ABL16176-ABL30511), expressed DNA
 CC sequences (ABL01840-ABL16175) and the encoded proteins (ABB57737-
 CC ABB72072). The sequence data for this patent did not form part of the
 CC printed specification, but was obtained in electronic format directly
 CC from WIPO at ftp.wipo.int/pub/published_pct_sequences

sq Sequence 145 AA;

Query Match 29.0%; Score 83.5; DB 4; Length 145;

Best Local Similarity 44.1%; Pred. No. 0.91; 21; Indels 7; Gaps 4;

Matches 26; Conservative 5; Mismatches 21; Indels 7; Gaps 4;

QY 4 SALPAPT--GSALPDPTASALPDPPAAS--ALPALAV-ISFLIGIGVACVLART 57

DB 33 SAATATPTASSSATPTPSPTS--PNPPAVGGMGLPMTLGLGLGGMGMGVSRRLRT 89

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